

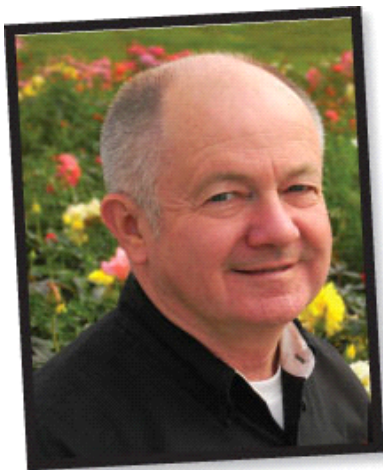
GROWERTALKS

Culture Notes

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Growing the Poinsettia Crop

Dr. P. Allen Hammer



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Sunlight and Day Length Control: The poinsettia crop should receive as much sunlight as possible. Adequate spacing, clean glazing and nothing overhead are important for poinsettia growth and quality. If the crop is going to be delayed with long days, the long-day lighting should begin on September 1 to ensure plants remain vegetative.

Lighting from 10:00 p.m. to 2:00 a.m. each night provides the best long day conditions. If the poinsettia flowering is going to be accelerated, plants should receive black cloth treatment from 5:00 p.m. until 8:00 a.m., making sure there are no light leaks in the shade-out curtains. If natural day flowering is used, make sure there are no stray lights on in the greenhouse at night after September 1. This means visiting the

greenhouse during the night to check for light leaks.

Watering and Fertilizer: Poinsettias should not be stressed to point of wilting before water is applied, but they should dry out between waterings. With a drip system, apply water for a short time to allow the top of the container to be wetted, wait a short period, and then apply enough water until drainage occurs. Plants should be thoroughly watered each time.

Provide a moderate to heavy feed with a poinsettia fertilizer formulation. Supplying adequate calcium and magnesium is important to the poinsettia crop. Early application of fertilizer containing ammonium (from potting until October 1) is important in stimulating early growth of the more compact poinsettia cultivars. Light-leafed poinsettia cultivars require a higher rate of fertilizer than the dark-leafed ones. Periodically applying a higher rate of fertilizer (300 ppm N) or adding a slow-release fertilizer as a top dress to the light-leafed cultivars when growing together with the dark-leafed poinsettias will provide the higher fertility. Perform a complete root medium analysis at least monthly to monitor the pH and nutrient levels of the crop. With a root medium analysis, nutrient levels can be adjusted before they affect plant growth.

Temperature: Don't save on fuel costs by lowering temperature during the early growth of poinsettias. Under most growing conditions, 70F to 75F (21C to 24C) day and 67F (19.5C) night temperatures are essential for

the early growth of poinsettias. I wouldn't suggest lower temperatures unless the grower has had success with cool growing. Cool finishing poinsettias to save heating costs is possible, however, when planned in advance as a production strategy with specific cultivars. Consult with the poinsettia breeder when considering cool finish of particular cultivars.

Insect and Disease Control: Use an integrated pest management approach to both insect and disease control. Yellow sticky cards are a must for monitoring insects. Scouting the plants weekly for insects and diseases will allow a quick response to deal with problems before they become large. Scouting requires that growers "walk the crop"—touch and feel the plants, and look at the roots. All unknown problems should be identified quickly. Delaying response, treating a problem with a wrong chemical, or the wrong approach to correcting a problem will only make the problem worse and increase the cost to correct it.

Graphical Tracking: Tracking the weekly height of the poinsettia crop provides an important decision aid. Growers should adjust the standard growth curves to fit their specific greenhouse, cultivar and container size. These adjustments can be made with growth data from previous years. It's also important to make weekly production adjustments to account for growth differences between the observed height and the standard curve. Below or above the standard curve in October is much more difficult to correct in November.

PGRs, DIF, Morning Dip: All three can be used to increase or decrease stem elongation. Make higher rates of PGR applications before October 1 in northern production areas. Later applications will result in delayed bract development as well as reduced bract size. DIF can be used for a small increase or decrease in stem elongation later in production in cooler production areas without an affect on bract development. A morning dip may be the most effective way of providing the DIF to reduce stem elongation. The morning dip (reducing temperatures 5F to 10F or 2.8C to 5.5C) should start one hour before sunrise until one hour after sunrise to be effective. Micro-drenches of paclobutrazol (0.1 to 0.5 ppm) can also be used later in production to reduce elongation in poinsettias without delaying bract development when used correctly. This technique should only be used with experience and/or advice from a trusted source. **GT**

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